

DEPARTMENT OF MECHANICAL ENGINEERING

Report on

**Two Day Workshop on
Fundamentals of Vibration Measurement and Analysis with
experimental approach
08-03-2019 & 09-03-2019**

Coordinators



Dr. R. Ramesh



Dr. C. Senthamarai Kannan



Dr. S. RAMESH BABU, M.E., Ph.D
Professor & Head
Department of Mechanical Engineering
Sri Venkateswara College of Engineering
Pennalur, Sriperumbudur (TK) - 602117.
Tamilnadu, INDIA.

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Sri Venkateswara College of Engineering
Department of Mechanical Engineering

To
Dr. RR
R
5/2/19

Submitted to The Principal

Through The HOD/ME

30-01-19

Dear Sir,

Sub: Requesting approval for conducting Two day workshop on "Fundamentals of Vibration measurement and analysis with Experimental approach" in the month of March -19' -reg.

We are interested to conduct a Two Day workshop on "Fundamentals of Vibration measurement and analysis with Experimental approach" in the first week of March, 08&09 -2019. We plan to invite the experts from reputed academic institutions for delivering lectures in the workshop. We restricted the participants to 30nos, because of practical sessions involved in the workshop. Tentatively we expect around 20 participants from various Institutions and some internal participants around 10 members. The registration fee will be collected from -Faculty members, Rs 750 & Students - Rs 500/-

To conduct the event, the registration amount collected from the participant will be utilized for organizing this workshop.

Principal's Kind permission is requested for conducting the workshop.

Yours sincerely,

R. Ramesh 30/01/19

Dr. R. Ramesh, M.E., Ph.D
Professor/ME

C. Senthamarai kannan 30/1/19

Dr C senthamarai kannan
Asst Prof/ME

Recommended & forwarded
to the Principal for approval

Ramesh
30/01/2019

To: HOD-ME
Approved
26
1/2

Fwd: Two-day workshop on “Fundamentals of Vibration Measurement and analysis with experimental approach”, 08 & 09 MARCH 2019-Reg

2 messages

Hod Mech <hodme@svce.ac.in>
To: Faculty Group <svcefaculty@svce.ac.in>

Wed, Feb 20, 2019 at 9:05 AM

Dear Professors

FYI

--

With Regards,

Dr. S. Ramesh babu

Professor and Head

Department of Mechanical Engineering
Sri Venkateswara College of Engineering
No.1, Pennalur, Irungattukottai Post,
Sriperumbudur Taluk. - 602 117.
Ph.: +91-44-2715 2000 Ext.: 400
Mobile No.: +91-99624 86928

----- Forwarded message -----

From: **RAMESH R MEC** <rameshraj@svce.ac.in>

Date: Tue, 19 Feb 2019 at 14:39

Subject: Two-day workshop on “Fundamentals of Vibration Measurement and analysis with experimental approach”, 08 & 09 MARCH 2019-Reg

To: HOD MECH <hodme@svce.ac.in>

Dear Sir,

Kindly forward this mail to our SVCE faculty group.

Thank you,

With Best Regards,

Dr.R.Ramesh, M.E., Ph.D (IIT M)

Professor, Mechanical Engineering,

Subject: Two-day workshop on “Fundamentals of Vibration Measurement and analysis with experimental approach”, **08 & 09 MARCH 2019-Reg.****Dear Professors,**

We are pleased to inform you that our Mechanical Department is organizing Two Day Workshop on “**Fundamentals of Vibration Measurement and analysis with experimental approach**” during **08 & 09 MARCH 2019.**

The objective of this two-day workshop is to explore and promote the basic knowledge in Vibration, Measurement techniques and mitigation approaches. The program will be very much useful for students, researchers/ teaching faculty and industry practitioners. This workshop will facilitate the participants in practical knowledge sharing and discussions.

In this connection we request you to display/forward the attached brochure in your college/department and give wide publicity to this workshop among the faculty members and students of your department and ensure participation in large numbers and make it a big success. Your valued co-operation in this regard shall be highly appreciated. Please refer the attached brochure for further details of the workshop.

Thanking you

With Regards,

Dr.R.Ramesh, M.E., Ph.D (IIT M)
Professor, Mechanical Engineering,
Asst. Dean - Academics,
Sri Venkateswara College of Engineering,
Pennalur, Sriperumbudur Tk,
PIN: 602117.
Ph:044-27152000:: Extn:403
Mobile:09445247374

Email: rameshraj@gmail.com



Fundamentals of Vibration Measurement and analysis with experimental approach (1).pdf
640K

SENTHAMARAI KANNAN C Mec <senthamarai@svce.ac.in>
To: KIRUBAKARAN G MEC <kirubakaran@svce.ac.in>

Mon, Aug 5, 2019 at 11:43 AM

WITH REGARDS,

Dr. C.Senthamaraikannan, M.E, Ph.D
Assistant Professor,
Department of Mechanical Engineering,
Sri Venkateswara College of Engineering,
Sriperumbudur - 602117
Anna University Supervisor No: 3320009
Mobile : 99 404 73966, 9942860999
Official email ID : senthamarai@svce.ac.in
Personal email ID : csenthamaraikannan@gmail.com
OrCID iD : 0000-0001-6365-6427

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Fundamentals of Vibration Measurement and analysis with experimental approach (1).pdf
640K

ABOUT THE INSTITUTE

Sri Venkateswara College of Engineering was established in the year 1985, with three academic departments. Ever since, it has grown into a premier institution imparting knowledge and excellence through academic, research and infrastructural developments. SVCE now offers ten UG and ten PG courses in various engineering disciplines. Ten departments are recognized as research centers for M.S. and Ph.D. programmes by Anna University, Chennai. It is actively involved in many research programmes funded by various industries and organizations, supported by well dedicated faculty, staff and student community. The campus, spread over 95 acres, is located on Chennai-Bengaluru highway. The college is located amidst many renowned industries like Hyundai, Delphi-TVS, Royal Enfield, Caterpillar, Daimler and Saint-Gobain, to mention a few.

ABOUT THE DEPARTMENT

The department of Mechanical engineering is accredited by the National Board of Accreditation (NBA) since 1998 and is one of the approved research centre by Anna University, Chennai. With well-equipped laboratories, approved research supervisors and dedicated faculty members, the department offers UG/PG courses and specializes in the fields of Thermal, Design, Manufacturing and Industrial Engineering. It also houses three research cells, Tribology, Fibre Reinforced Plastics cell (FRP) and Multi-disciplinary Bio-Fuel Research Cell, which are used extensively for undertaking research and consultancy projects. The department has MOU's with many industries to jointly work on research and development. AICTE funded projects for an amount of Rs 90 lakhs was carried out in the past five years.

PROGRAM OBJECTIVE

The objective of this two-day workshop is to explore and promote the basic knowledge in Vibration, Measurement techniques and mitigation approaches. The program will be very much useful for students, researchers/ teaching faculty and industry practitioners. This workshop will facilitate the participants in practical knowledge sharing and discussions.

TOPICS COVERED

- Fundamentals of Vibration: Concept, Classification and Analysis
 - Vibration Equipment's and Measurement Techniques
 - Mechanical vibration: Mitigation approaches
- ❖ **Exclusive Hands on Practical sessions**
- Free Vibration study of Plates/beams
 - Modal Shape Observation and Analysis
- ❖ **Demonstration Session**
- Experimental Forced vibration response study

RESOURCE PERSONS

The workshop has many technical sessions with presentations by experts from VIT, Anna University, and Expert members from the leading industries

Two Day Workshop

On

Fundamentals of Vibration Measurement and analysis with experimental approach

08 & 09 MARCH 2019

Convenor

Dr.S.Ramesh Babu
*Head of the Department
Mechanical Engineering*

Coordinators

Dr. R. Ramesh
Professor
Dr. C. Senthamaraiannan
Assistant Professor

Organized by



Department of Mechanical Engineering
Sri Venkateswara College of Engineering
Chennai Bengaluru Highway, Ponnalur,
Sriperumbudur – 602 117

REGISTRATION FORM

Two Day Workshop
on

Fundamentals of Vibration Measurement and analysis with Experimental approach

08 & 09 MARCH 2019

1. Name :
2. Designation :
3. Qualification :
(Degree, Specialization)
4. Age & Sex :
5. Experience :
6. Institution :
7. Address for Communication:

Mobile :
E-mail :
8. Demand Draft details:

Bank:

DD No.: DD Date:

Place:
Date:

Signature of the applicant

REGISTRATION FEE

- Faculty/Research Scholars – Rs.750/-
PG/UG Students – Rs.500/-
Professionals from Industries/R&D – Rs.1000/-

Registration Fee payable by Demand Draft (DD) drawn in favour of 'The Principal, Sri Venkateswara College of Engineering', payable at Chennai, is to be sent along with the registration form to the Coordinator. The number of participants is limited to 30. The selection will be on first cum first serve basis.

No TA/DA will be provided.

PARTICIPANTS

Application for participation is welcome from Faculty members, Research scholars, Professionals from Industries and R&D organizations and students from academic institutions.

IMPORTANT DATES

- Last date for Registration : 01st March '19
Notification of Acceptance : 02nd March '19
Acceptance will be intimated through email

VENUE

Video Hall
Sri Venkateswara College of Engineering

ORGANISING COMMITTEE

CHIEF PATRON

Dr.A.C.Muthiah

Chairman

PATRON

Dr. M Sivanandham, Ph.D,

Secretary

Co-PATRON

Dr. S.Ganesh Vaidyanathan

Principal/SVCE

ADVISORY COMMITTEE

Dr.K.Pitchandi,

Professor/Mech. Engg,

Controller of Examinations,SVCE

Dr. K.S. Badrinathan

Professor/Mech. Engg.,

Dean-Educational Development, SVCE

Dr. N. Muthukrishnan

Professor/Mech. Engg., SVCE

Dr. S.Saravanan

Professor/Mech. Engg., SVCE

Dr. T. Raja

Professor/Mech. Engg., SVCE

ADDRESS FOR COMMUNICATION

Dr. R. Ramesh, M.E, Ph. D (IIT M)

Professor & Coordinator,

Department of Mechanical Engineering,

Sri Venkateswara College of Engineering,

Pennalur, Sriperumbudur Tk, Pin – 602117.

Phone: +91-44-27152000:: Ext: 403

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E mail: rameshrraja@svce.ac.in



SRI VENKATESWARA COLLEGE OF ENGINEERING

(AUTONOMOUS)

(Approved by AICTE and affiliated to Anna University, Chennai)

DEPARTMENT OF MECHANICAL ENGINEERING

(Accredited by National Board of Accreditation)

Two Day Workshop

On

Fundamentals of Vibration Measurement and analysis with experimental approach

8th – 9th MARCH 2019

8th MARCH 2019, Friday - Day 1

Venue – Video Hall

08:30 – 09:00: REGISTRATION
09:00 – 10:00: INAUGURAL FUNCTION
CHIEF GUEST – INAUGURAL ADDRESS

Session I

10:00 – 11:00: FUNDAMENTALS OF VIBRATION: CONCEPT, CLASSIFICATION AND ANALYSIS –
Dr.R.VASUDEVAN,
DEAN, SMBS, VIT, VELLORE.

11:00 – 11:15 :: HIGH TEA

Session II

11:15 – 12:15: MECHANICAL VIBRATION: MITIGATION APPROACHES
- DR.M S ALPHIN,
Associate Professor, SSN Engineering College

WORKING LUNCH

Session III

Venue – Vibration lab

13:00 – 15:00: Vibration Measurement techniques
Hands on training Session on Free Vibration study of Plates/beams
– DR. R. Ramesh , Professor, Mechanical Engineering,SVCE
_ Dr.C.SenthamaraiKannan, Asst.Professor, Mechanical Engineering,SVCE

15:00 – 15:15 :: TEA BREAK

End of Day 1



9th MARCH 2019, Saturday - Day 2

Session I

Venue – Video Hall

09:00 – 10:15: **Vibration Mitigation Approaches**
Dr.R.Murugan,
Professor, Panimalar Institute of technology

10:15 – 10:30: **TEA BREAK**

Session II

Venue – Vibration lab

10:30 – 12:30: **Modal Shape observation and Analysis**
– **DR. R. Ramesh , Professor, Mechanical Engineering,SVCE**
_ **Dr.C.Senthamaraikannan, Asst.Professor, Mechanical Engineering,SVCE**

12:30 – 13:15 **WORKING LUNCH**

Session IV

13:15 – 14:30: **Experimental Forced Vibration Response Study**
– **DR. R. Ramesh , Professor, Mechanical Engineering,SVCE**
_ **Dr.C.Senthamaraikannan, Asst.Professor, Mechanical Engineering,SVCE**

-

14:30 – 15:00:

Venue – Video Hall

VALEDICTORY FUNCTION
CHIEF GUEST –
SPECIAL GUEST -, SVCE

15:00 – 15:15 **::** **TEA BREAK**

End of Day 2



Attendance List

Professors,

S.No	Name of the Participant	Facult/Student	Attendance				Signature
			08.03.2019		9.03.2019		
			FN	AN	FN	AN	
1	Prof.S.Krishnan	Faculty	S.K	S.K	S.K	S.K	S.K
2	Prof.V.Gurusamy	FACULTY	V.G	V.G	V.G	V.G	V.G
3	Prof.Fedrick	Faculty	F.F	F.F	F.F	F.F	F.F
4	Prof.N.Suresh	FACULTY	N.S	N.S	N.S	N.S	N.S
5	Mr.G.Kirubakaran	FACULTY	G.K	G.K	G.K	G.K	G.K
6	Mr.Muniraj (750)	Faculty	M.M	M.M	M.M	M.M	M.M
7	T.Aakash	STUDENT	A.A	A.A	A.A	A.A	A.A
8	A.Vijayadharan	STUDENT	A.V	A.V	A.V	A.V	A.V
9	K.Vimalesh Rajavel	STUDENT	K.V	K.V	K.V	K.V	K.V
10	V.V.Varun	Student	V.V	V.V	V.V	V.V	V.V
11	S.Sai Sree Chandra	Student	S.S	S.S	S.S	S.S	S.S
12	V.Adarsh Krishna	student	V.A	V.A	V.A	V.A	V.A
13	S.Vignesh	Student	S.V	S.V	S.V	S.V	S.V
14	R.Karthik Kumar (750)	FACULTY	R.K	R.K	R.K	R.K	R.K
15	S.R.Mithul Krithik KIRUTHIK	STUDENT	S.R	S.R	S.R	S.R	S.R
16	S.Dinesh	STUDENT	S.D	S.D	S.D	S.D	S.D
17	A.SHEIK MEERAN RASHEED	STUDENT	A.S	A.S	A.S	A.S	A.S
18	T. SUBASH	STUDENT	T.S	T.S	T.S	T.S	T.S
19	Mr. K.E. KUMARAGURU	FACULTY	K.E	K.E	K.E	K.E	K.E
20	A. SUMANT	STUDENT	A.S	A.S	A.S	A.S	A.S
21	G. RUPESH	STUDENT	G.R	G.R	G.R	G.R	G.R
22	AJAY GOVINDARAJAN.G.J	STUDENT	A.G	A.G	A.G	A.G	A.G
23	P. VIGNESH	STUDENT	P.V	P.V	P.V	P.V	P.V
24	K.R.SRI PRASHANTH	STUDENT	K.R	K.R	K.R	K.R	K.R
25	Raghurath Srinivas R	STUDENT	R.S	R.S	R.S	R.S	R.S

Coordinators


Dr. R. Ramesh


Dr. C. Senthamarai Kannan


Dr. S. RAMESH BABU, M.E., Ph.D
 Professor & Head
 Department of Mechanical Engineering
 Sri Venkateswara College of Engineering
 Pennalur, Sriperumbudur (TK) - 602117.
 Tamilnadu, INDIA.

A BRIEF REPORT ABOUT TWO DAY WORKSHOP

Title: Fundamentals of Vibration Measurement and analysis with experimental approach

08-09 March 2019

The Two-day workshop entitled on "Fundamentals of Vibration Measurement and analysis with experimental approach" was successfully organized by Department of Mechanical Engineering during 8th -9th March 2019. Totally 25 participants attended the workshop and benefited.

The objective of the program was set to explore and promote the basic knowledge in Vibration. Measurement techniques and mitigation approaches. The program was very much useful for students, researchers and teaching faculty. This workshop facilitated the participants, preferably students of Mechanical and Automobile engineering, in practical knowledge sharing and discussions.

The workshop was planned with many technical sessions, presentations by experts from VIT University, Vellore. SSN College of Engineering, Panimalar Institute of Technology and senior faculty members from the SVCE. Faculty members, Research scholars, and students from own institution and other academic institutions registered and participated in the workshop.

The topics covered were:

- Fundamentals of Vibration: Concept, Classification and Analysis
- Vibration Equipment's and Measurement Techniques
- Mechanical vibration: Mitigation approaches

❖ **Exclusive Hands on Practical sessions**

- Experimental Free Vibration study of Plates/beams
- Experimental Modal Shape Observation and Analysis

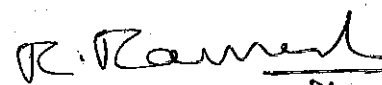
❖ **Demonstration Session**

Practical test on Forced vibration response study was demonstrated under various sweep conditions.

Following speakers gave technical talk in their respective field of interest:

Dr.R.Vasudevan, Professor & Dean, School of Mechanical Engineering, Vellore Institute of Technology (VIT), Vellore	Fundamentals of Vibration: Concept, Classification and Analysis
Dr. M.S.Alphin M.E, Ph.D. Associate Professor Department of Mechanical Engineering S S N College of Engineering, Chennai.	Mechanical vibration: Mitigation approaches
Dr. R. Murugan, Professor, Department of Mechanical Engineering, Panimalar Institute of Technology, Chennai.	Modal Shape observation and Analysis
Dr.R.Ramesh, Professor, ME,SVCE Dr.C.Senthamaraikannan, Assistant Professor, ME/SVCE	Three Practical Sessions on Free Vibration Study and Forced Vibration responses

The feedback received from some of the participants at the time of valedictory function clearly revealed the successful completion and knowledge gained by them.



Dr. R. Ramesh.

Coordinator of the Workshop



Practical Session in the Vibration Laboratory



Valedictory Function and Certificate Distribution, Valedictory Function was chaired by Dr.R.Murugan, Professor, Panimalar Institute of Technology, Chennai and certificate was received by a Participant.



Expert Lecture Dr.R.Murugan, Professor, Panimalar Institute of Technology, Chennai



Expert Lecture by DR.M.S.Alphin, Associate Professor, SSN Engineering College, Chennai



Inaugural Session of Two day workshop on Fundamentals of Vibration Measurement and analysis with experimental approach Chaired and Inaugurated By **Dr.R.VASUDEVAN**, DEAN,SMBS VIT University ,Vellore, **Dr.S.RAMESHBABU**, HOD/ME, SVCE, **Dr. K.S.BADRINATHAN**,DEAN-Educational Development ,Svce, **Dr.R.RAMESH**,Coordinator of the workshop



Expert Lecture by **Dr.R.VASUDEVAN**, DEAN,SMBS VIT,VELLORE

SRI VENKATESWARA COLLEGE OF ENGINEERING



[Autonomous -Affiliated to Anna University]
Pennalur, Sriperumbudur (Taluk) -602117
Website: www.svce.ac.in

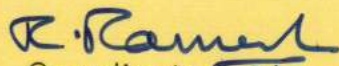


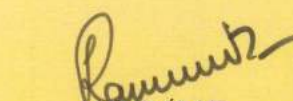
Certificate of Participation

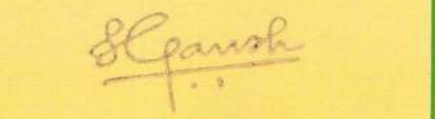
**Two day workshop
on**

**Fundamentals of Vibration Measurement and Analysis
with Experimental Approach**

This is to certify that **Dr/Mr/Ms. N. SURESH ASST. PROF**
from **DEPARTMENT OF MECHANICAL ENGINEERING**
St. JOSEPH'S INSTITUTE OF TECHNOLOGY has attended
Two day workshop on Fundamentals of Vibration Measurement and Analysis
with Experimental Approach conducted by the Department of Mechanical
Engineering, Sri Venkateswara College of Engineering, Sriperumbudur, during
08 & 09 March 2019.


Coordinator
Dr.R.Ramesh


HOD/ME
Dr.S.Ramesh Babu


Principal
Dr.S.Ganesh Vaidyanathan